

Iowa Bird Life

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THE 1964 CHRISTMAS BIRD CENSUS IN IOWA

Compiled by
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DES MOINES, IOWA

The 28th Christmas Bird Census compilation reflects a continuing increase in this activity as the number of observers, disregarding the fact that some participated in two or more counts, increased from 232 last year to 245. An all-time high of 108 species was reported. The weather on count day, for most stations, was more favorable than that experienced last year, and this may have been the chief factor.

The rarities found this year were a Sage Thrasher at Des Moines, and a Varied Thrush at Davenport. There is only one State record for each in previous years; a Sage Thrasher in Des Moines for several weeks in the winter of 1952-53, and a Varied Thrush reported on the Davenport census in 1960, (this bird was in Illinois, the 1964 record was for Iowa—ed.) Two Turkeys in the Yellow River Forest are the first reported on a census, as are the Swainson's Thrush at Aledo and the Yellow-headed Blackbirds at Titonka. A Water Pipit at Des Moines was the first since 1939. Carolina Wrens at Aledo and Muscatine are the first since 1961. Two very large flocks of Lapland Longspurs were reported from Buffalo Center and Jefferson.

On the minus side is the fact that Bald Eagles were 25 fewer than last year with Davenport reporting only 19. Other than Snow Buntings and Goshawks, each reported from three areas, there was a noticeable decrease in the rarer winter visitors. There were no Bohemian Waxwings, Evening Grosbeaks or crossbills, and but 4 Winter Wrens, 6 Red-breasted Nuthatches, 2 Common Redpolls, and 5 Pine Siskins reported.

1. AKRON (10 square mile area covering farmland, groves, and weedy ditches and creeks near my home). Dec. 24; 9:00 a.m. to 5:00 p.m. Temp. 10 F.; wind 25 m.p.h. A.M., 5 m.p.h. P.M. from NW. Mostly cloudy, 4 in. crusted snow on ground. Observers (1) Eldon J. Bryant.

2. ALEDO, ILLINOIS (7½ mile radius centered 4 mi. SW. of Joy, Ill). Jan. 3; 7:00 a.m. to 5:30 p.m. Temp. 20-38 F.; wind 2 m.p.h. from S. Clear, ground bare, river 10% ice covered with floating ice. Observers (14) in 5 parties; Bruce and Wendell Bergstrom, Larry Dau, Elton Fawks, Dick and Ted Greer, Katherine Love, Mr. and Mrs. Peter Petersen Jr., Frank Rodl, Marjie Trial, Robert Trial (compiler), Norman Ward and Robert White.

Swainson's Thrush closely observed with 7x binoculars by Trial party. Henslow's Sparrow seen by Dick Greer at close range, with all field marks noted.

3. AMES (7½ mile radius from Ames). Dec. 19; 7:30 a.m. to 2:30 p.m. Temp. 12-25 F.; wind 5-25 m.p.h. from SE. Snowing, cloudy. Streams and ponds mostly frozen. Observer (1) Richard L. Knight.

Oregon Junco — seen in good light, with brown head and black body clearly observed. Goshawk — seen in area since Dec. 1st.

4. BELLEVUE (State Park, Mill Creek area, Lock and Dam No. 12). Dec. 20; 8:00 a.m. to 5:00 p.m. Temp. 20 to 32 F.; wind calm. Clear, about 3 in. of snow on ground. Observers (3) in 1 party: Mr. and Mrs. M. L. Jones and Loren Jones.

5. BUFFALO CENTER (15 mile diameter circle, center four and a half miles southeast of Buffalo Center. Open farmland with two plots of deciduous woods). Dec. 26; 8:00 a.m. to 5:30 p.m. Temp. -8 to 5 F.; wind none. Clear with fresh four to six inch snow cover. Observers (7) in 4 parties; Mrs. Ray

Hill, Mrs. R. F. Miller, Dr. J. O. Moermond, Tim C. Moermond (compiler), Mike Orthel, Dr. H. J. Seyffert, Barton Sutter.

The Rough-leg has shown high abundance in our area for four successive years. The Oregon Junco was very sharply defined. It was seen in good light by three observers (TCM, MO, BS). The Song Sparrows were seen in strong light and studied carefully (MO). The Lapland Longspurs were present in several large, scattered flocks. The longspurs have frequently attained this abundance here. Flocks of a thousand or more have been recorded in past winters here.

6. BURLINGTON (15 mile diameter, circle centering at Flint Hills Golf course — same as previous years). Dec. 27; 7:30 a.m. to 4:30 p.m. Temp. 6-29 F.; wind 6 m.p.h. from NE. Partly cloudy to fair, 1 inch snow cover, Mississippi 95% frozen. Observers (17) in 4 parties; Mrs. Oscar Bjork, George Crossley, Mr. and Mrs. Lowell Fuller, Frieda Haffner, Jerry Jackson, Mr. and Mrs. Harold Linder, Elaine Linder, Peter Lowther, Jack McLane, Mr. and Mrs. Paul Niemann, Nancy Niemann, Merle Post, Mrs. Frank Schramm, and Sue Worth.

7. CEDAR RAPIDS (7½ mile radius of Federal building. Cedar Lake, Shaver Park, city water works, Ellis Park, and river roads north and south, Beaver Park, Lakeside). Jan. 1; 8:00 a.m. to 5:00 p.m. Temp. 30 to 36 F.; wind 3 m.p.h. from SE. Overcast, fog turning to rain in p.m. Some old snow on ground in places. Observers (18) in 4 parties; Robert Cecil, Esther Copp, Paul Foote, Susan Heuer, Mr. and Mrs. Beryl Layton, Mr. and Mrs. Keith Layton, Mrs. Robert Liljedahl, Mr. and Mrs. S. M. Pattee, Lillian Serbousek, Mrs. Dayton Sippy, Dr. and Mrs. Robert Vane, Robert S. Vane, James Vernon and Myra G. Willis.

8. CLINTON (7½ mile radius centered ½ miles S. of Elk River Jct., just south of previous years circles and Savanna Ord. Depot). Jan. 2; 6:45 a.m. to 5:30 p.m. Temp. 31-30 F.; wind 10-20 m.p.h. from SW. Overcast, clearing in afternoon, ground bare, river 90% ice covered. Observers (10) in 4 parties; Allen Carlson, Larry Dau, Elton Fawks, Paul Hagenson, Fred and Maurice Leshner, Mary Lou Petersen, Peter Petersen Jr. (compiler), Frank Rodl, and Norman Ward.

Peregrine Falcon observed both in flight and perched, (EM, AC, and FR).

9. DAVENPORT (7½ mile radius of toll house of Memorial Bridge as in previous years). Dec. 27; 5:30 a.m. to 5:15 p.m. Temp. -4 to 27 F.; wind 8-15 m.p.h. from E. Clear, ground covered with 2 inch snow, river 90% ice covered. Observers (41) in 22 parties; Steve Aupperle, Erma Bleur, Lewis Blevins, Mr. and Mrs. Adolph Cabor, Harry Carl, Allen Carlson, Larry Dau, Mr. and Mrs. Robert Dau, Mr. and Mrs. Walter Dau, Robert Davis, Leo Doering, Dale Dickinson, Elton Fawks, Mrs. A. H. Fisher, Carol Frink, Mr. and Mrs. Jacob Frink, Mr. and Mrs. Floyd Gold, Mrs. Frank Gordon, Mrs. Ivan Graham, Dick Greer, Mrs. C. C. Hazard, Martin Johnson, Katherine Love, Mrs. Frank Marquis, Mary Lou Petersen, Peter Petersen, Jr. (compiler), Mr. and Mrs. Pete Petersen, Sr., Frank Rodl, Conrad Sindt, Everet Sprague, Kent Stewart, Urban Stratman, Joe Tracy, Norman Ward and John White.

Teal seen in flight (NW), Goshawk well observed (EF), Varied Thrush, all field marks noted at close range — had been at a nearby feeder previously (Mrs. CH).

10. DECORAH (NE corner Sec. 24, T994, R8W; river and creek bottoms 60%; fields, 20%; city, 5%; coniferous plantings, 2%; farmyards, 6%; pastures, 7%). Jan. 2; 7:30 a.m. to 5:00 p.m. Temp. 20-32 F.; wind 9-15 m.p.h. from NW. Clear, 1-3 inch snow cover. Observers (14) in 4 parties; Florence Albright, Vernon Bahr, R. W. Daubendick, Gus Heuser, Oivind Hovde, George Knudson, Cynthia Koenig, Darwin Koenig, Mr. and Mrs. Vern Koenig, R. Rasmusen, R. Rulon, Mr. and Mrs. Roy Schultz.

	1. Akron	2. Aledo	3. Ames	4. Bellevue	5. Buffalo Center	6. Burlington	7. Cedar Rapids	8. Clinton	9. Davenport	10. Decorah	11. Des Moines	12. Dubuque	13. Goldfield	14. Hawarden	15. Iowa City	16. Jefferson	17. Jenup	18. Leamont	19. Lehigh	20. Marshalltown	21. Muscatine	22. Ogden	23. Shennandoah	24. Sioux City	25. Tionka	26. Waterloo	27. Winthrop	28. Yellow River
Pied-billed Grebe				1		2					1																	
Great Blue Heron																												
Canada Goose		47			1800	492	15	103	5		1	37			36						138		1		300	1	1	
Mallard					200	6						4									3			6				
Black Duck						2																						
Gadwall																												
Pintail																												
Green-winged Teal																												
Blue-winged Teal																												
American Widgeon																												
Ring-necked Duck																												
Canvasback																												
Lesser Scaup		25																										
Common Goldeneye		14					12	16	201	4																		
Hooded Merganser																												
Common Merganser							2	29	3																			
Red-br. Merganser																												
Goshawk		2																										
Sharp-shinned Hawk		2					1																					
Cooper's Hawk																												
Red-tailed Hawk		48					5	32	62	27	19	3	1		28	3	7	13	2	21	40	1		3	9	8	4	5
Red-shouldered Hawk		9									1	1			2													
Broad-winged Hawk		1																										
Rough-legged Hawk		12									2				9	3	6	1	1	7	13	6	1	1	2	2	8	3
Bald Eagle		47					14	11	39						1						15							1
Marsh Hawk		15					2	4	8		2	1			4	1		3	1		6	1		2				
Osprey																												
Peregrine Falcon																												
Sparrow Hawk		16					5		14		1		4	1	3		1	5	4	10	4			10	3	1	1	
Ruffed Grouse																												
Turkey																												
Bobwhite		152													12		18	12										
Ring-necked Pheasant		6	3				6	3	72	19	2	25	17	5	3	5	2	11	2						8	2852	5	9
Gray Partridge												4	9															
Quail																												
Killdeer																												
Common Snipe		4																										
Herring Gull		2																										
Ring-billed Gull																												
Mourning Dove		74																										
Barn Owl																												
Screech Owl		3																										
Great Horned Owl		1																										
Barred Owl		5																										
Long-eared Owl		15																										
Short-eared Owl		2																										
Saw-whet Owl																												
Belted Kingfisher		4																										
Yellow-shafted Flicker		6	80				2	23	2	14	28	5	58	3	4	11	3	3	42	6	6	15	3	7	3	3	10	2
Pileated Woodpecker		6																										
Red-bell. Woodpecker		55	3	6			17	2	17	53	33	40	3	1	19	5	6	28	8	49	3	6	2	1	2	13	4	7
Red-bd. Woodpecker		32					12	14	33	38	37	11	5		16		5	56	4	14	7						23	5

CHRISTMAS BIRD CENSUS

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Yellow-bell. Sapsucker	27	2	2	3	8	1	1	5	1	3	1	2	1	15	3	7	17	6	11	1	7	2	2	
Hairy Woodpecker	2	87	12	7	11	33	20	21	16	20	11	4	10	12	5	7	36	6	31	58	9	7	2	
Downy Woodpecker	20	36	12	7	405	47	176	181	22	107	11	4	212	1	10	9	19	70	20	7	21	11	10	
Horned Lark	2	173	12	10	9	948	244	188	180	174	63	22	150	8	48	23	39	60	650	177	47	8	77	
Blue Jay	4	456	10	9	106	268	117	103	205	12	150	14	75	31	20	11	64	18	78	180	12	9	196	
Common Crow	7	159	20	16	57	39	58	76	85	106	4	2	75	14	7	2	5	3	12	32	4	10	24	
Black-cap. Chickadee	36	1	12	22	11	82	24	63	4	2	6	30	5	6	27	1	19	44	11	9	23	10	6	
Tufted Titmouse	75	6	8	13	23	17	16	82	36	92	8	1	6	30	5	6	27	1	19	44	11	9	23	
White-br. Nuthatch	4	4	2	2	1	3	1	10	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	
Red-br. Nuthatch	4	4	2	2	1	3	1	10	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	
Brown Creeper	4	4	2	2	1	3	1	10	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	
Winter Wren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Carolina Wren	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mockingbird	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Catbird	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Sage Thrasher	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
Swainson's Thrush	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
E. Bluebird	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Varied Thrush	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	114	
Golden-cr. Kinglet	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165	
Water Pipit	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Cedar Waxwing	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Northern Shrike	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Loggerhead Shrike	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Shrike sp.	20	142	11	6	127	445	1927	8994	233	650	507	70	50	655	400	151	92	35	1794	124	250	3000	34	236
Starling	2227	175	308	374	1147	4957	947	1600	305	110	100	100	100	530	700	250	255	85	2507	10	475	500	14	249
House Sparrow	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
E. Meadowlark	3	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
W. Meadowlark	3	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Meadowlark sp.	3	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Yellow-hd. Blackbird	1	45	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Red-wg. Blackbird	1	45	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rusty Blackbird	3	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Brewer's Blackbird	3	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Common Grackle	2	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Brown-head. Cowbird	248	50	13	1	91	41	187	163	188	110	17	1	4	43	20	26	89	6	89	304	3	29	33	26
Cardinal	18	1	1	1	36	3	20	15	32	5	1	1	1	2	6	2	6	2	8	8	8	8	8	8
Purple Finch	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pine Grosbeak	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Common Redpoll	167	6	3	1	170	8	126	92	233	11	13	3	10	2	46	7	6	11	256	12	14	117	100	39
Pine Siskin	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Finch	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Golden-c. Towhee	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rufous-sided Towhee	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
House Sparrow	59	443	1	1	57	285	145	481	820	346	220	20	12	100	96	35	58	82	12	178	816	64	243	500
Vesper Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
State-colored Junco	78	858	30	1	103	146	18	880	1157	204	368	6	16	184	45	372	257	40	190	1048	210	274	500	72
Oregon Junco	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Tree Sparrow	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Field Sparrow	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
Harris' Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
White-cr. Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
White-throat. Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fox Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Swamp Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Song Sparrow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lapland Longspur	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Snow Bunting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Number of Species	14	68	25	25	45	36	54	71	34	43	27	30	20	42	30	27	35	33	39	52	22	31	27	27
Number of Observers	1	14	1	3	7	17	18	10	14	14	8	2	2	12	2	3	8	1	15	8	2	5	20	2

See data under station in body of article

Total Iowa list

108

*See data under station in body of article **No estimate made of numbers in flocks seen Total Iowa List

108

We noted the eye ring, two wingbars, plain breast, and the rusty cap on the Field Sparrow; it was with Tree Sparrows.

11. DES MOINES (Greenwood Park, Airport, Clark's, Walnut and Brown's Woods, Flint Acres Access, Margo Frankel Woods, Fairgrounds, Waterworks Park, Glendale and Pinehill Cem., Fisher's Lake, Camp Dodge, Brenton's Slough). Dec. 26; 8:00 a.m. to 6:00 p.m. Temp. 2-20 F.; wind 9 m.p.h. from NW. Clear, no snow on ground, ponds frozen, some open water in rivers. Observers (14) in 4 parties; Mrs. A. J. Binsfeld, Wm. Boller, Margaret Brooke, Woodward H. Brown, Oliver Graves, Lester Haskell, Dave Hurd, Joe Kennedy, J. C. Lamb, Dr. Robt. Norton, Dr. and Mrs. Harold Peasley, Mary Elizabeth Peck, Mary Ellen Wartens.

Sage Thrasher was observed by seven people, and on-the-spot comparisons of the field marks with illustration and text description in Peterson's **Western Guide** were made. The pipit was well observed in the same area by the same group.

12. DUBUQUE (Linwood Cemetery, City Island, Dubuque's Grave area, Eagle Point Park, John Deere, and river sloughs in Wisconsin). Jan. 2; 7:30 a.m. to 5:00 p.m. Temp. 24-33 F.; wind 10 m.p.h. from N. Cloudy then clearing; glaze on smooth ground; river open past city. Observers (8) in 1 party; Frieda Crossley, George Crossley, Howard Higley, Delbert Ludwig, Merrill Pregler, Mildred Pregler, Ival Schuster, Phyllis Shultz.

Ducks were in open water below powerhouses. Pileated woodpeckers came on trees within 125 feet.

13. GOLDFIELD (15 mile radius centered on Goldfield including Lake Cornelia, Elm Lake and Morse Lake). Dec. 29; 8:00 a.m. to 5:00 p.m. Temp. 31-35 F.; wind 3-8 m.p.h. from NW. Cloudy. Foggy in morning — 1 inch new snow. Observers (2) in 1 party; Dean Oviatt and Dean Roosa.

14. HAWARDEN (Rural areas within 10 miles N.-NE. of the Big Sioux River, Oak Grove State Park, the Rock, Sioux Access, both the Iowa and South Dakota sides of the river). Dec. 31; 8:00 a.m. to 3:30 p.m. Temp. 16-37 F.; wind calm to 15 m.p.h. Clear to partly cloudy to overcast. 4 inches of snow, river frozen. Observers (2) in 1 party; Jim Bertram and Ron Muilenburg.

15. IOWA CITY (15 mile radius including Iowa City, Lake Macbride, Coralville Reservoir, and west). Dec. 30; 7:00 a.m. to 5:00 p.m. Temp. 34-40 F.; wind 0-15 m.p.h. River, ponds and lake frozen. River open below Reservoir dam. Observers (12) in 3 parties; Seddie Cogswell, R. L. Hulbary, Dr. and Mrs. P. P. Laude, Fred Leshner, Rev. Leshner, F. W. Kent, Bob Kent, Dr. and Mrs. Wm. Moeller, Dr. and Mrs. Max Pepernik.

16. JEFFERSON (area within a 7½ mile radius centered at the point on Highway 30 which is 5 miles west of the city, including Goose Lake, Dunbar Slough, and the Racoon River). Dec. 27; 7:30 a.m. to 6:00 p.m. Temp. 5-23 F.; wind 10-12 m.p.h. from SE. Clear, 1 inch of snow on ground, river completely ice covered except where a sewage creek flowed into the river, all other water areas were 100% ice covered. Observers (2) in 1 party; Dave Bucklin, John Faaborg (compiler).

Kingfisher was on an open spot of the river; the Harris' Sparrow has been common all winter; Lapland Longspurs were all in one big flock.

17. JESUP (Cutshaw Bridge, Buffington Bridge, Stone Quarry #1, Amish farm land, small creek bottom lands and Wapsie River). Dec. 30; 9:00 a.m. to 4:00 p.m. Temp. 32 dropping to 22 F.; Early fog and misting with visibility one mile and no wind — brisk winds and gusting around the noon hour. Clearing with seven and one half mile an hour wind in P.M. Snow on ground, 1½ inches, timber 4 inches, fields were bare, no open water. Observers (3) in 1 party; Mrs. Lloyd Hewitt, Mrs. Duane Williams and Mrs. Ronald Barnett.

Harris' Sparrow was with tree sparrows and Goldfinches and he re-

mained perched at 8 feet from observers for as long as we wanted to look at him — immature plumage.

18. LAMONI (parts of $7\frac{1}{2}$ mile radius including farm land, roadsides, woods, river bank, Nine Eagles State Park, Graceland College Campus). Dec. 30; 8:00 a.m. to 5:00 p.m. Temp. 20-40 F.; wind 5 m.p.h. from SW. Weather clear, ground bare and frozen, streams mostly frozen. Observers (8) in 3 parties; Mrs. Dean Ballantyne, Mrs. W. C. DeLong, Billy, Jim and J. Donald Gillaspey (compiler), Mike Silver, Mr. and Mrs. Ralph Silver.

19. LEHIGH (10 mile radius centering on Lehigh, including Dolliver State Park). Dec. 26; 7:00 a.m. to 5:30 p.m. Temp. 0-22 F.; wind 10-25 m.p.h. from SE. Partly cloudy, 1 inch new snow on ground. Observer (1) Dean M. Roosa.

20. MARSHALLTOWN (northern one-half of county). Jan. 2; 8:00 a.m. to 4:00 p.m. Temp. 25-37 F.; wind 0-10 m.p.h. from NW. Clear to bright sunny day. No snow. Observers (15) in 4 parties; Wayne Britten, Mrs. Perry Drury, Mrs. M. C. Farber, Mrs. L. R. Grimes, Orville Grimes, Walter Harvey, Mrs. Phyllis Hilleman, Ruth Knights, Mrs. Otis Lacey, Mrs. Laura McCubbin, Mr. and Mrs. James Maish, Mrs. John Mowry and Mr. and Mrs. Homer Rinehart (compiler).

21. MUSCATINE ($7\frac{1}{2}$ mile radius of Lock and Dam 16, same as in previous years). Dec. 26; 6:45 a.m. to 5:15 p.m. Temp. 10-17 F.; wind 0-15 m.p.h. from W. Clear, ground covered with 2 inch snow, river 75% ice covered. Observers (8) in 3 parties; Allen Carlson, Larry Dau, Elton Fawks, Fred Leshner, Mary Lou Petersen, Peter Petersen, Jr. (compiler), Frank Rodl and Norman Ward.

Vesper Sparrows closely observed (EF).

22. OGDEN (5 mile radius from home; roadsides, fields, creek bottoms and woods). Jan. 3; 8:30 a.m. to 5:00 p.m. Temp. 26-35 F.; wind 8 m.p.h. from SW. Partly cloudy, no snow, creek frozen over except for isolated areas. Observers (2) in 1 party; Mr. and Mrs. Jim Keenan.

23. SHENANDOAH (all points in a 15 mile diameter circle, center Farragut, including the Riverton area). Dec. 27; 8:00 a.m. to 4:00 p.m. Temp 9-35 F.; wind 5-10 m.p.h. from S. Sunny, clear; ground clear with rivers frozen and spring-fed streams open. Observers (5) in 2 parties; Mr. and Mrs. Francis M. Braley, Lidice Bermudez G., Mrs. Robert I. Bordner, Mr. Edward C. Vaughn.

24. SIOUX CITY (same as previous years). Jan. 3; 8:00 a.m. to 5:00 p.m. Temp. 8-33 F.; wind 10 m.p.h. from SE. Clear, 2 inches snow, Missouri River open in some areas. Observers (20) in 7 parties; Mrs. W. W. Barrett, Mr. and Mrs. P. B. Davison, Mr. and Mrs. Alden G. Erskine, Mr. and Mrs. Darrell Hanna, Mr. and Mrs. Howard Johnson, Mr. and Mrs. A. D. Kirkpatrick, Mr. and Mrs. John Lueshen, Mr. and Mrs. George Marsh, Robert L. Nickolson, Mr. and Mrs. Harland Roose, Mrs. Virgil Stiegelmeier and Miss Gertrude Weaver.

25. TITONKA (2,077-acre Union Slough Nat'l Wildlife Refuge, center of 15-mile diameter circle. 50% marsh and water; 40% grassland and mixed wood thickets; 10% cultivated croplands). Dec. 22; 7:30 a.m. to 5:00 p.m. Temp. 18-27 F.; wind 18 m.p.h. from SW-NW. Wind shifted to NW at 11 a.m. One inch snow on ground, pools frozen, tile outlets open. Observers (1); Paul E. Ferguson.

Canada Goose was with ducks in open tile outlet.

26. WATERLOO (Crane Creek, Wapsipinicon River, Seven Bridges Park, farm lands and woods north of Park). Dec. 26; 7:15 a.m. to 3:45 p.m. Temp. -3 to -8; wind 0-5 m.p.h. from SE. Sky clear, bitter cold, 2 or more inches of

snow. Observers (9) in 1 party; Myrle M. Burk, Helen Fleming, Russell Hays, Charles Moon, Thomas Moon, John Osness, Lois Osness, Nick Osness, Ida Mae Wade.

27. WINTHROP (roadsides in Buchanan County and a drive through Backbone State Park (Delaware County), about 2 miles on foot by F.J.P.; 100 miles by car by both observers). Dec. 27; 8:30 a.m. to 5:00 p.m. Temp. 4-20 F.; wind light from S. Clear; 1½ inches of 2-day-old snow on ground. Observers (2) in 1 party; Mr. and Mrs. Fred J. Pierce.

28. YELLOW RIVER FOREST (NE corner Sec. 8, T96N, R3W; Miss. River with timbered bluffs, 30%; streams with wooded hill, 30%; fields and pastures, 20%; marsh, 5%). Jan. 3; 7:30 a.m. to 5:00 p.m. Temp. 20-32 F.; wind 0-12 m.p.h. from SW. Clear 1-3 inch snow cover. Observers (4) in 1-2 parties; Florence Albright, Mr. and Mrs. R. W. Daubendick, Darwin Koenig.

Turkey — we noted the size and color, unmistakable.

ADDITIONAL BIRD NOTES WHICH ACCOMPANIED THE CENSUSES

Akron — Other species seen during the census period: Red-tailed Hawk, Rough-legged Hawk, Sparrow Hawk, Gray Partridge, Short-eared Owl, Hairy Woodpecker, and Red-winged Blackbird.

Ames — Red-shouldered Hawk, Mourning Dove, Great Horned Owl, Kingfisher and Golden-crowned Kinglet were seen during the period.

Bellevue — Myrle Jones saw "What surely had to be an eider." The color pattern appeared to be that of the King Eider, but at the distance it could have been the Common Eider.

Buffalo Center — Gray Partridge was seen during the period.

Burlington — During the period there were seen: Common Goldeneye, Ring-billed Gull, Mourning Dove, Brown Creeper, Winter Wren, Carolina Wren, Bluebird, Ruby-crowned Kinglet, Cowbird, and Oregon Junco.

Cedar Rapids — Additional species were seen during the census period: Pied-billed Grebe, Redhead, Ring-necked Duck, Cooper's Hawk, Sparrow Hawk, Robin, meadowlark (sp) and Common Grackle.

Davenport — Redhead, Cooper's Hawk, Turkey, Snowy Owl and Pileated Woodpecker were seen during the period.

Des Moines — During the period Loggerhead Shrike and E. Meadowlark seen.

Goldfield — Red-headed Woodpecker was an additional species in period.

Hawarden — Of the Horned Larks seen 12 were thought to have the additional yellow coloration of the northern subspecies.

Iowa City — Killdeer, Screech Owl and Winter Wren were seen during the period but not on count day.

Jefferson — A Robin was seen on the first day of the period but not later. A Short-eared Owl was also missed.

Jesup — A Northern Shrike in immature plumage was seen on 27 Dec.

Lamoni — The Red-headed Woodpeckers were the largest number ever seen in the winter. During the census period a Long-eared Owl and Bluebirds were seen in the area.

Lehigh — Barred Owl and Common Grackle were seen during the period.

Marshalltown — Screech Owl, Horned Lark and Robin are additional species observed during the period.

Ogden — "Blue-winged Teal, meadowlarks (sp), Common Grackle and Harris' Sparrows are very uncommon here at this time of year." Northern Shrike, Red-tailed Hawk, Sparrow Hawk, Pheasant, Red-headed Woodpecker, Tufted Titmouse and Red-breasted Nuthatch were also seen but not on count day.

Shenandoah — "Noteworthy is the lack of ducks, geese and blackbirds which are generally seen in quantity during the winter." Pheasant, Screech Owl and Great Horned Owl are others seen during the period.

Sioux City — "A number of normally quite common birds were not observed this winter despite the quite mild weather. A sufficient food supply seems to be available. A larger number of observers were in the field and all reported a lack of bird activity." Yellow-bellied Sapsucker and Common Grackle were also seen in the census period.

Frieda and George Crossley on 3 January drove from Farley to Pine Hollow and the Forest Preserve and observed the following: Red-tailed Hawk, 1; Bald Eagle, 1; Great Horned Owl, 2; Red-bellied Woodpecker, 6; Red-headed Woodpecker, 9; Downy Woodpecker, 8; Horned Lark, 9; Blue Jay, 11; Common Crow, 14; Black-capped Chickadee, 8; Tufted Titmouse, 3; White-breasted Nuthatch, 3; Starling, 70; House Sparrow, 190; Cardinal, 7; American Goldfinch, 17; Slate-colored Junco, 1; Tree Sparrow, 59; Song Sparrow, 2.

The Omaha Bird Club on 26 December censused a 15-mile circle based on Offutt Lake. The portion of the circle lying in Iowa includes Lake Manawa and the river bottoms and bluffs south of it. The observers, L. F. Knowles, L. W. Powell, Jr., Miss E. B. Appleby, J. E. Plank, and E. T. Stacy, observed the following in Iowa: Sharp-shinned Hawk, 1; Red-tailed Hawk, 10; Rough-legged Hawk, 13; Marsh Hawk, 12; Sparrow Hawk, 5; Bobwhite, 2; Mourning Dove, 10; Short-eared Owl, 2; Yellow-shafted Flicker, 9; Red-bellied Woodpecker, 9; Red-headed Woodpecker, 1; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 6; Downy Woodpecker, 16; Horned Lark, 12; Blue Jay, 20; Crow, 17; Black-capped Chickadee, 105; Tufted Titmouse, 8; White-breasted Nuthatch, 10; Robin, 1; Northern Shrike, 2; Starling, 472; House Sparrow, 707; meadowlark (sp.), 7; Red-winged Blackbird, 6; Cardinal, 81; American Goldfinch, 31; Slate-colored Junco, 208; Tree Sparrow, 266; Harris' Sparrow, 1; Song Sparrow, 18.

Mrs. J. B. Osher, Mrs. B. A. La Doux, Mr. and Mrs. Fred Wolden on 30 December censused a circle centered on Estherville. Their observations, which were received too late for inclusion in the compilation, were: Pheasant, 15; Mourning Dove, 5; Yellow-shafted Flicker, 5; Red-bellied Woodpecker, 1; Yellow-bellied Sapsucker, 1; Hairy Woodpecker, 4; Downy Woodpecker, 6; Horned Lark, 2; Blue Jay, 3; Crow, 46; Black-capped Chickadee, 16; White-breasted Nuthatch, 2; Brown Creeper, 3; Ruby-crowned Kinglet, 1; Starling, 25; House Sparrow, 236; Cardinal, 3; Slate-colored Junco, 25; Tree Sparrow, 110; Harris' Sparrow, 2; Song Sparrow, 8; Bald Eagle, W. Meadowlark and Evening Grosbeak were also in the area during the count period.

THE EFFECTS OF A FLOOD ON NESTING IOWA MARSH BIRDS

GERALD W. KAUFMANN

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DUBUQUE, IOWA

ROBERT IVINS

Ontario Fish and Game Commission,
ONTARIO

In the second year of study of the development of a marsh a flood occurred which drastically affected its bird life. Elk Creek Marsh is a state-owned area located in Worth County, about 25 miles north of Mason City.

A long term study was established in 1962 to contribute information on suitable methods of management. The investigation was financed by the Iowa State Conservation Commission through a Pittman-Robertson Project in co-operation with Iowa State University. Under study is the impounding of 7.5 miles of Elk Creek to develop marsh conditions. The first 1.5 miles was impounded in the fall of 1961.

On June 7 and 8, 1963, nearly 7.5 inches of rain and considerable hail fell. Extensive flooding resulted, covering the emergent vegetation, leaving only the bluegrass knolls exposed. The flood raised the water level of the impounded stream considerably, and completely covered the marshy floodplains of the unpounded area. This forced marsh birds to abandon territories and it destroyed their nests.

The cover and loafing sites of the waterfowl were inundated, and the pairs appeared to be in a state of confusion in the open water. Soon after they formed small flocks, which visited the flooded cornfields during the following days. These flocks returned to roost in the impoundment in the evening. Occasionally courtship flights were noted during the day. By June 21 no pairs were found on the area. The only remaining waterfowl were hens with broods, which had hatched before the flood. Most destroyed nests were probably far in incubation, so that the hens were too advanced in their reproductive cycles to renest. Table 1 shows the poor breeding success of the waterfowl, primarily due to the flood. The only exception was the Wood Ducks. The flood did not affect their normal use of the marsh and hens hatched broods after the flood.

Table 1. Effects of flooding on the breeding success of ducks and rails on Elk Creek Marsh.

Species	Number of Pairs	Number of Successful Nests
Mallard (<i>Anas platyrhynchos</i>)	10	4
Pintail (<i>Anas acuta</i>)	1	0
Blue-winged Teal (<i>Anas discors</i>)	14	6
Shoveler (<i>Anas clypeata</i>)	1	0
Wood Duck (<i>Aix sponsa</i>)	6	3
Ruddy Duck (<i>Oxyura jamaicensis</i>)	1	0
King Rail (<i>Rallus elegans</i>)	1	0
Virginia Rail (<i>Rallus limicola</i>)	6	0
Sora (<i>Porzana carolina</i>)	6	1?
	46	13-14

Other marsh birds were just as affected as were waterfowl. From the location of 10 nests and sight observations at least 13 pairs of rails were known to be located on the marsh; six pairs of Virginia Rails, six pairs of Soras and one pair of King Rails. Immediately after the flood, a pair of Soras and two pairs of Virginia Rails were observed on the tops of muskrat lodges. When approached by canoe, they were reluctant to fly, even when the canoe was adjacent to the lodge. One Sora and two Virginia Rails flew to nearby mats of floating debris, and one Sora climbed up an adjacent willow tree. Checking the active rail nests revealed that all had been first smashed by the hail then were submersed. All of the eggs would have hatched within one or two days. Nest searching until July 11 revealed no evidence of renesting. Except for a sighting of a single pair of Virginia Rails on July 16, no rails were observed until mid-August. These latter arrivals were believed to have been wandering juveniles.

Blackbirds were common inhabitants of the marsh prior to the flood, with Red-winged Blackbirds (*Agelaius phoeniceus*) being the most abundant. The storms occurred when most of the young blackbirds were still nestlings. No young red-wings were known to survive, but many pairs re-nested. A few young Yellow-headed Blackbirds (*Xanthocephalus xanthocephalus*) were also observed.

phalus) did survive, these being very near the fledgling stage. They were seen flapping on the water with their wings, and many managed to reach muskrat lodges. Most of the yellow-heads vacated the marsh, and those remaining were the parents of the surviving young. A few weeks later these also left, after rearing the fledglings. Yellow-headed Blackbirds were not sighted on the area until mid-August. These were presumed to be wandering juveniles.

Long-billed Marsh Wrens (*Telmatodytes palustris*) were very common in one large marshy area, which had also supported most of the Yellow-headed Blackbirds. All of the emergent vegetation in which their nests were made was submersed. Once the flood receded, however, the wrens began to re-nest in the same area.

Several pairs of Least Bitterns (*Ixobrychus exilis*) nested and successfully reared young after the flood. These late-nesting birds were unaffected by the flood.

This flood was detrimental to the local breeding population of birds of a marsh. Many birds suffered the loss of their nests and young, and often the females were unable to re-nest. Only the tree-nesting Wood Ducks and late-nesting Least Bitterns were unaffected. Table 2 summarized the behavior of the birds after the flood.

Table 2. Post-flood behavior of the marsh birds.

Species	Relative number Renesting	Relative number Vacating
Least Bitterns	first nested	none
Waterfowl	none	most
Rails	none	most
Long-billed Marsh Wrens	most	few, if any
Yellow-headed Blackbirds	none	all
Red-winged Blackbirds	some	many

NESTING HABITS OF IOWA BIRDS

STEPHEN PATTERSON

R.R. # 2

PERRY, IOWA

After reading the March 1962 issue of *Iowa Bird Life* asking all members to take part in a census of Iowa's nesting birds, this writer decided to make an extensive census of the birds nesting in his area. This investigation covered the number of eggs and/or young, habitat, nest site, locality, time of visit, and presence of parent birds. The nests were visited once every eight days. The information gathered was then recorded on the nesting cards provided to members of the I.O.U.

A total of one hundred and one nests of fifteen species of birds was found. Most of the nests were found two and one-half miles south of Perry — Spring Valley Township, sections 24, 27, 34, 35 with a few in Perry proper and other scattered locales in the vicinity. The timbered land has heavy brush overgrowing a large part of it. More than twenty varieties of trees and a large number of species of bushes and shrubs provide an excellent habitat. The timber is crisscrossed by a network of small streams and ravines.

The Brown Thrasher comprised nearly one-third of the nests found. Of thirty-one nests found twelve were successful, raising a total of forty-three young. Nearly all nests were in the same type of habitat, composed of bushes

and trees. Usually nests were not far from a stream. All nests were less than eight feet above the ground; but many different types of nest sites were employed, ranging from locusts and gooseberries, which were most common, to small elms and hawthornes. The number of eggs ranged from one to six with most nests containing three to five. Nest materials were always the same, sticks and grass lined with fine grass and rootlets. Of the total eggs laid (103) forty-two percent fledged. Most thrashers nested in two distinct periods; one beginning in May and ending in early June, and the other beginning in late June and ending in July.

Robins ranked second in number of nests with nineteen, nine of which were successful. From these nine nests only seventeen young were raised. A large number of young were missed while they were in the downy stage. Since they grow very rapidly during this time, the nest may be too small to hold them all. This may be one of the checks and balances which keeps Robins from over-producing. Robins were found in nearly all types of habitat, ranging from open pasture to wooded areas; and no preference for being near water was shown. Most nests were between three and twenty feet above the ground, but the height of the nests from the ground ranged from one inch to fifty feet. Cedars, a prevalent tree in the area, were most often used as nesting sites; but many other types of trees were also used. Nests averaged three or four eggs. Twenty-nine per cent of the fifty-eight eggs laid were successful. All nests but one were completed in May. The one was terminated in June.

Only one of the nine nests of the Mourning Dove was successful. From this nest two young were raised. Most destroyed nests were completely missing, whereas the predated nests of other birds were usually still intact. This probably is due to the fact that Mourning Doves construct very poor nests. No set height was observed for nests. They ranged from three to ten feet in height. Locusts and cedars were usually used as nesting sites. All nests but one contained two eggs. Only seventeen percent of the twelve eggs laid were raised.

Of the eight Bluebird nests recorded, only two were successful. A total of ten young was raised. The type of habitat seemed to be subordinate to finding a good nest site. As much is being written about the value of Bluebird houses, this writer placed twelve boxes of the same general make in several different types of habitat, ranging from open areas to roadsides to heavily wooded areas. Boxes in all areas were used at least once, and most were used a second time. The only requirement for the box was that it have the correct hole size, approximately 2-2½ inches square. Any color or size seemed suitable. Much has been said about the decreasing number of Bluebirds in the state. Up until this year this concensus seemed true. However, when an adequate supply of nesting sites are present, the birds are commonly seen. This year in this area Bluebirds were nesting within several hundred feet of each other in full view of other such pairs, whereas in recent years few were seen at all. The number of eggs in a clutch was between one and five in number, with five being the most common number found. Birds were found nesting from May until August. Apparently as soon as one brood was raised, the parents started on their second one. At one box the parents and five young were seen, while the box contained several eggs which represented the second clutch. Thirty-six percent of the twenty-eight eggs laid fledged. The draw-backs connected with the use of houses for Bluebirds are predatory animals and wrens. Early in the season, before a record was kept on Bluebirds, no boxes were destroyed by anything that appeared to be a predatory animal, but as the summer wore on, more and more boxes were destroyed within several days of each other.

Whether this is a coincidence is questionable. There is a possibility that after a time animals, such as raccoons, discover that such boxes contain birds and purposefully hunt them. This eventually may make houses placed in the wild more of a hazard than a help. House Wrens also moved into the boxes before the Bluebirds had a chance.

Six of the seven Eastern Phoebe nests on which a record was kept were successful, raising eighteen young. Twenty-eight percent of the eggs never hatched. All nests were in identical nesting sites. Every nest was in a road culvert that was at least six feet high. The road culverts all contained water at least part of the year. The surrounding land ranged from heavily-wooded terrain to open pasture. Little preference seemed to be shown as to whether wood or cement culverts were desirable. Since the Phoebe nests were high on perpendicular walls, their only important enemy was man. The only nest which was destroyed was destroyed because it was built on the insulator of an electric fence wire which ran through the culvert. Three nests contained five eggs, the other four contained four. Nest materials consisted of mud, grass, weed stems, and assorted other materials, such as, wool and cattle hair. All nests had some moss plastered on the outside. Cattle hair and grass were the principal materials used in lining the nests. Approximately fifty-eight percent of the thirty-one eggs laid were raised. The Phoebes have a continuous nesting period. About a week after one clutch is raised another is started, usually in the same nest.

The House Wren accounted for six of the nests investigated. One-half of the nests found were successful. From these three nests nineteen young were raised. All nests but one were in shady tree-covered areas. No preference whatsoever was shown for water. All nests were in houses placed for Bluebirds. All boxes were four feet above the ground. As with the Bluebirds, no color preference was shown for houses. Three nests contained six eggs; two, seven; and one, which was destroyed before the full clutch had been laid, contained one egg. Nest materials were always the same, sticks, packed tightly with a small pocket lined with feathers (often their own or, when available, chicken feathers) in the back, as far from the entrance as possible. Nearly sixty percent of the thirty-two eggs were raised. Wrens nested from May to August.

A total of five Catbird nests was investigated. Nine young were raised from the three successful nests. The type of habitat varied only in the denseness of the undergrowth. All nests were found in wooded areas. Catbirds showed some dependency on water. Height of the nests ranged from two and one-half feet to four and one-half feet. Common prickly ash, a small tree never over fifteen feet high and quite commonly found in the area, and gooseberry bushes were the two nest sites used. Three to five eggs were laid in the nests, composed of sticks, grass, and weed stems. Rootlets and grass were used to line the nests. Of the nineteen eggs laid, forty-seven percent were raised. Three nests were found in May; two, in June.

Four of the Cardinal's nests were found. From the two nests which were successful, five young were raised. The habitat varied little, consisting of areas of dense undergrowth with a large number of trees shading the area. Their nests were always in a secluded place, usually near water. All nests were between two and three feet from the ground in a thicket, large bush (gooseberry), or, as in the case of one pair, a cedar. Three or four eggs were found in all nests but one, which was destroyed before more than one egg had been laid. Weed stems and grass were the two types of nest materials used; the nests were lined with either rootlets or fine grass. Forty-two percent of the twelve eggs laid were successful. May was the starting date for every nest. One nest was not vacated until early June.

The Common Grackle contributed two nests to the nesting census. Eight or nine young were raised from both nests, which were successful. Grackles seem to have a fondness for pines. Both nests were found in short-needed conifers in a quiet place within the city of Perry. The nesting height varied from fifteen to thirty feet above the ground. One nest contained five eggs; the other, six. The bulky nests were made primarily of sticks and grass, but one was on the order of a robin's nest in that mud was extensively used. Approximately eighty-two percent of the eleven eggs laid were successfully reared. The nests were started and completed in May.

The Red-winged Blackbird also contributed two nests to the census. A total of four young were raised from the one undisturbed nest. Nearness to a stream and closeness to an open area were apparent in each nest. The two nests were in an open pasture only a few feet apart. However, the successful nest was built after the other one had been destroyed. A small shrub approximately two and one-half feet high was the nesting site. The destroyed nest contained three eggs; the other nest, four. Grass and corn shucks were the only nesting material used. Of the seven eggs laid fifty-seven percent were reared. Because of the limited number of nests found, no nesting periods could definitely be set, but the first nest was started and destroyed in May; the second beginning in June and ending in July.

The graceful Barn Swallow, raising but one young, added another two nests to the record. The interior of a chicken house was the nesting site. The nests, which were seven feet from the ground, were made of mud pellets lined with chicken feathers. While the swallows were nesting, the temperature was in the high nineties. This was the probable reason for the nesting failures, since the nests were next to the ceiling and far away from any fresh air. Thirteen percent of the eight eggs were raised. The Barn Swallows started nesting in June and continued through July.

The Yellow-billed Cuckoo supplied two more nests, both of which were successful. One nest was in an almost inaccessible tangle close to the river bottom, while another nest was in a fairly open wooded area. One nest was about three feet above the ground; the other, about six feet. A mulberry served as a nest site for one pair; a hawthorne, for the other. The type of nesting materials was about the only similarity between the two pairs. Both nests were made of grass, sticks, and weed stems. One nest had a clutch of three eggs and raised two, the other had a clutch of four and raised three. This gives a seventy-one percent mortality rate. One nest was in use from June to July. The other nest was used from July to August.

Two nests of the Blue Jay were found. Both were destroyed. One nest was in a dead oak in a secluded spot near a stream in a thickly timbered area with little underbrush. The other was in a hackberry on the playground of a Perry school. One was ten feet above the ground; the other, seven. Four or five eggs were laid in each of the nests, which were composed primarily of sticks and grass. To this writer it seemed that the nests were too small to accommodate this number of young. Both nests were found and destroyed in May.

One unsuccessful nest of the Rose-breasted Grosbeak was found. The nest site was the end of a small limb of a locust in an overgrown fence which separated a timbered area from a field. The nest was approximately five and one-half feet above ground. Many types of young trees were growing along the fence. There were four eggs in the nest composed of grass and corn shucks. The nest was discovered in June and destroyed in early July.

One nest of the Lark Sparrow was found. Two young were raised. The nest was built in a small depression in the row of a soybean field. The nest was at least fifty yards from any trees or bushes. Three eggs were laid.

Pieces of corn stalk and weed stems made up the bulk of the nest. The lining was composed of grass and cattle hair. Two of the three eggs laid were raised. The nest was found in June, and the young left the nest in mid-July.

The idea that the parent birds will leave the nest if it is disturbed by humans is a myth. Often the parent birds flew only a few feet away while the nest was being checked and then returned before the writer was out of sight. Of the one hundred and one nests on which a record was kept, fifty-six were destroyed or 55.5%. Many times the cause of destruction was easily determined when due to storms or, as in the case of Bluebirds, some type of clawed animal. Even though 65.3% of the eggs hatched, only one hundred thirty-seven or 48.9% of the two hundred eighty eggs were successfully raised. This means that 16.4% of the eggs hatched but never left the nest. In many cases the nests were intact but empty. This might be attributed to destruction by snakes, mice, or other birds. In some instances it was difficult to tell if the young had left the nest or had been killed. In most cases the parent birds escaped when the nest was destroyed and often could still be found in the area. Seldom were any feathers found around the nest.

The data presented shows that certain species of birds are **not** raising enough young to perpetuate themselves. Birds such as the Mourning Dove are definitely not raising enough young. Other birds such as the Barn Swallow, Blue Jay, and Rose-breasted Grosbeak are not raising enough young according to the facts presented here. However, this paper in itself is inconclusive due to the small number of nests checked. Much more intensive checking will have to be done to either prove or disprove this data.

IOWA BIRD BANDING SUMMARY FOR 1964

DEAN M. ROOSA
GOLDFIELD, IOWA

We welcome several new banders into our group this year. Mr. and Mrs. Fitzhugh Diggs, Hamburg, and Kenneth Formanek, park officer at Waubesa State Park, Hamburg, are welcome additions from the southwest part of the state. Mr. Paul Ferguson has replaced John Wilbrecht as manager of Union Slough Federal Refuge, Tiltonka, and is continuing the fine banding activities there. These new banders, plus an expanded program by the state conservation commission has helped increase the total birds banded in 1964 by over 7000 more than in 1963.

Editor Peter Petersen, Jr., Davenport, again led the individual banders with 4706 birds. The Rineharts, Marshalltown, and the Ayres, Ottumwa, were second and third with over 2000 each.

Again there were some outstanding and unusual records, some of which follow. Ten Common Gallinules, one King Rail, and fifteen Virginia Rails were banded by the conservation commission. Also they banded and released fifty-one experimental Canada Geese at Ingham Lake in an attempt to attract a breeding stock of wild birds there. Myrle Jones banded a Yellow Rail. Fifteen Yellow-headed Blackbirds were banded at Union Slough. The Rineharts managed to catch ten Henslow's Sparrows, and eight LeConte's Sparrows. Petersen and Leshner each banded one Henslow's Sparrow. Six Blue Grosbeaks were banded by Petersen, one by the Diggs. Western Kingbirds banded by Formanek, Diggs and Petersen, and Saw-whet Owls by Petersen, Rinehart, Ayres, and Black, and six Say's Phoebes were banded by Petersen.

In numbers of individuals banded, consider the 1465 Purple Finches banded by the Ayres, the 835 Slate-colored Juncos, the 471 warblers, including 127 Nashville Warblers, the 239 Ruby-crowned Kinglets, the 835 sparrows, including 134 Fox Sparrows, all banded by Petersen. The Rineharts netted 123 warblers, the Ayres 119. Rineharts banded 162 Bank, and 142 Cliff Swallows. Paulson and Grier, working together at Cedar Falls, banded 948 Chimney Swifts. This represents a lot of work on these folks' part.

It is regrettable that Iowa is losing one of its all-time great banding teams. That genius of trap-making, Myrle Jones, and his wife, Margaret, are leaving us. Warmer climates are calling. I'm sure they will continue their demonstrations, that have interested so many young people, down in Arkansas. I'd press Myrle for details on how to catch Yellow Rails, but he has already admitted, via letter, that a farmer brought it to him. I.O.U. meetings will never be the same without these fine people.

Returns and recoveries of Iowa banded birds, the most important phase of our banding program, will be summarized in the next issue.

Following is a list of banders and the number of species and individuals they banded in Iowa in 1964:

Mr. and Mrs. Charles Ayres, Ottumwa	83	2119
Gladys Black, Pleasantville	71	961
Eugene Brady, Perry	14	51
Dr. Myrle Burk, Waterloo	47	486
Conservation Commission, Des Moines	23	8587
George Crane, Mt. Pleasant	31	136
Mrs. W. C. DeLong, Shenandoah	55	373
Mr. and Mrs. Fitzhugh Diggs, Hamburg, new banders	62	558
Mr. Paul E. Ferguson, Mrg. Union Slough, Titonka	14	573
Kenneth Formanek, Park Officer, Waubonsie State Park, Hamburg, new bander	18	62
Jim Grier, Waterloo	53	741
Mr. and Mrs. Myrle Jones, Bellevue	25	101
Fred Leshner, Minneapolis	18	157
Rev. Kay V. Mills, Goldfield	39	224
John Moeding, Manson	5	11
Carroll E. Oelke, New Hampton	8	23
Robert Paulson, Cedar Falls	86	1230
Peter C. Petersen, Jr., Davenport	142	4706
Arlo Raim, Waverly	36	148
Mr. and Mrs. Homer Rinehart, Marshalltown	120	2626
Dean M. Roosa, Goldfield	33	311
Robert Trial, Aledo, Illinois	11	31

	Totals	180	24,215
Pied-billed Grebe	26	Wood Duck	879
Double-crested Cormorant	3	Redhead	38
Green Heron	1	Ring-necked Duck	2
Canada Goose	51	Canvasback	1
Mallard	469	Lesser Scaup	1
Black Duck	1	Ruddy Duck	11
Gadwall	10	Sharp-shinned Hawk	12
Pintail	31	Red-tailed Hawk	32
Green-winged Teal	150	Red-shouldered Hawk	4
Blue-winged Teal	6082	Swainson's Hawk	6
American Widgeon	7	Rough-legged Hawk	1
Shoveler	23	Sparrow Hawk	20

BIRD BANDING SUMMARY

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Bobwhite	3	Barn Swallow	126
King Rail	1	Cliff Swallow	270
Virginia Rail	15	Purple Martin	40
Sora	16	Blue Jay	276
Yellow Rail	1	Common Crow	22
Common Gallinule	16	Black-capped Chickadee	199
American Coot	370	Tufted Titmouse	55
Semipalmated Plover	2	White-breasted Nuthatch	66
Killdeer	4	Red-breasted Nuthatch	7
American Woodcock	1	Brown Creeper	72
Common Snipe	4	House Wren	177
Upland Plover	5	Winter Wren	8
Spotted Sandpiper	4	Long-billed Marsh Wren	12
Solitary Sandpiper	4	Short-billed Marsh Wren	4
Lesser Yellowlegs	7	Mockingbird	4
Pectoral Sandpiper	8	Catbird	486
White-rumped Sandpiper	4	Brown Thrasher	205
Least Sandpiper	12	Robin	603
Semipalmated Sandpiper	86	Wood Thrush	13
Mourning Dove	1021	Hermit Thrush	53
Yellow-billed Cuckoo	26	Swainson's Thrush	160
Black-billed Cuckoo	12	Gray-cheeked Thrush	55
Screech Owl	20	Veery	34
Great Horned Owl	6	Eastern Bluebird	160
Barred Owl	3	Golden-crowned Kinglet	105
Long-eared Owl	5	Ruby-crowned Kinglet	360
Short-eared Owl	1	Cedar Waxwing	60
Saw-whet Owl	8	Loggerhead Shrike	31
Whip-poor-will	13	Starling	46
Common Nighthawk	15	Bell's Vireo	1
Chimney Swift	951	Yellow-throated Vireo	3
Ruby-throated Hummingbird	18	Solitary Vireo	41
Belted Kingfisher	5	Red-eyed Vireo	68
Yellow-shafted Flicker	73	Philadelphia Vireo	26
Red-bellied Woodpecker	17	Warbling Vireo	26
Red-headed Woodpecker	30	Black-and-white Warbler	30
Yellow-bellied Sapsucker	23	Golden-winged Warbler	1
Hairy Woodpecker	23	Blue-winged Warbler	4
Downy Woodpecker	167	Tennessee Warbler	92
Eastern Kingbird	37	Orange-crowned Warbler	64
Western Kingbird	6	Nashville Warbler	188
Crested Flycatcher	12	Yellow Warbler	16
Eastern Phoebe	51	Magnolia Warbler	35
Say's Phoebe	6	Myrtle Warbler	127
Yellow-bellied Flycatcher	61	Black-throated Green Warbler	3
Acadian Flycatcher	36	Blackburnian Warbler	2
Traill's Flycatcher	55	Chestnut-sided Warbler	17
Least Flycatcher	85	Bay-breasted Warbler	10
Unident. Epidonax Flycatcher	39	Blackpoll Warbler	4
Eastern Wood Pewee	26	Palm Warbler	13
Olive-sided Flycatcher	2	Ovenbird	76
Horned Lark	4	Northern Waterthrush	70
Tree Swallow	8	Louisiana Waterthrush	2
Bank Swallow	201	Kentucky Warbler	7
Rough-winged Swallow	7	Connecticut Warbler	7

Mourning Warbler	15	Purple Finch	1507
Yellowthroat	66	American Goldfinch	446
Yellow-breasted Chat	4	Rufous-sided Towhee	12
Wilson's Warbler	44	Savannah Sparrow	30
Canada Warbler	19	Grasshopper Sparrow	7
American Redstart	19	LeConte's Sparrow	8
House Sparrow	112	Henslow's Sparrow	12
Bobolink	10	Vesper Sparrow	7
Eastern Meadowlark	17	Lark Sparrow	5
Western Meadowlark	2	Slate-colored Junco	1793
Yellow-headed Blackbird	15	Oregon Junco	1
Red-winged Blackbird	278	Tree Sparrow	412
Orchard Oriole	8	Chipping Sparrow	46
Baltimore Oriole	124	Clay-colored Sparrow	1
Rusty Blackbird	27	Field Sparrow	31
Common Grackle	427	Harris' Sparrow	180
Brown-headed Cowbird	53	White-crowned Sparrow	27
Scarlet Tanager	3	White-throated Sparrow	919
Summer Tanager	4	Fox Sparrow	216
Cardinal	167	Lincoln's Sparrow	186
Rose-breasted Grosbeak	194	Swamp Sparrow	53
Blue Grosbeak	6	Song Sparrow	437
Indigo Bunting	96	Total Species	180
Dickcissel	30	Total individuals	24,215

A PAGE FROM YESTERDAY: THE PASSENGER PIGEON IN BUCHANAN COUNTY, IOWA*

FRED J. PIERCE
WINTHROP, IOWA

A young farmer strode back and forth across a newly plowed field. He was sowing oats by hand, and there was a rhythmic swaying of his body as he took handfuls of grain out of the sack slung over his shoulder and threw the yellow seeds both to right and left in a broad and clearly defined arc. The early April air was somewhat chill though it was full of pleasant odors of a new world coming to life.

The field inclined toward a clearing in the timber where sat a substantial clapboard house which shone in a coat of new paint — paint which had been brought all the way from Chicago by wagon train. The farmer's wife was proud of their home and believed it would be a fine place to rear their family, which was already represented by a young son.

There was an air of pastoral serenity in this scene. No paved highways, no festoons of electric and communication wires crossed the countryside. The whistle of the locomotive did not break the stillness and no jet airplanes left vapor trails in the azure sky. There was no threat of mass annihilation of the human race. The scene was Buchanan county, Iowa, but the year was 1855!

Farming a century ago was closely tied in to a rugged pioneer existence, while most of the early residents of the county were engaged in that profession. Many were the difficulties encountered in wresting a livelihood from

*Reprinted from Independence, Iowa "Conservative," Centennial Edition, Vol. 100, September, 1955.

primitive nature. One of the difficulties, now only a memory or recorded in books, was the destruction of seed grain by the passenger or wild pigeons once common in Buchanan county.

As the young farmer in our picture walked across his field, he kept an eye on the sky for a possible flock of wild pigeons. His loaded musket lay at the side of the field, and the farm dog was always ready to chase the pigeons away.

Wild pigeons in flocks of thousands often descended on the newly planted fields and stripped them of seed. They had a leap-frog motion as they worked, the birds in the rear of the flock rising into the air when the grain was gone and dropping down in the front of the flock—somewhat like a huge wheel of flying birds that rolled over the field almost as fast as a man could walk.

It took vigilance on the part of the farmer to get his seed covered before the pigeons found it. The grain was covered with a harrow or drag which tore up the loose earth, mellowed it and pushed the grain into the cracks and depressions. The harrow was hand-made from an oak frame with sharp pegs inserted at intervals, or pieces of brush were inserted into the holes to form a brush drag. Sometimes pieces of bright metal tied on strings and poles, and various types of scarecrows, were used to frighten the wild pigeons away from the fields.

The Passenger Pigeon looked almost like a Mourning Dove, but it was nearly a third larger in size. It was probably one of the most impressive birds that man has ever known—principally due to the fact that it traveled in tremendous flocks.

The number of wild pigeons in these flocks stagger the imagination. Various flights were recorded by reliable observers. The sun was often blotted out for hours as the clouds of pigeons flew over in their migrations. One recorded flight began at 4 a.m. and lasted until 6 p.m., a period of 14 hours, in which the birds flew over in a continuous stream at an estimated speed of 60 miles per hour—a solid column of pigeons 840 miles long and several miles wide!

The ornithologist Alexander Wilson carefully estimated one flock that he saw to contain 2,230,272,000 birds. They traveled in these huge flocks in the interior of the United States when migrating and when going to nesting grounds.

The wild pigeon was probably no more numerous than our Robin or grackle, but because the entire population assembled into a few immense flocks the species was completely eliminated in a few short years when man with his relentless destructive powers concentrated on it.

The nesting grounds of the Passenger Pigeon were of fabulous size, some apparently covering as much as 200 square miles. Wilson reported one that was several miles wide and nearly 40 miles in length. He counted 90 nests in a single tree, but the number was usually much less. It is not known whether the pigeon nested in Buchanan county. Apparently the nearest recorded nesting was on the Yellow River in northeast Iowa, in an area 2 miles wide and 20 miles long from Moneek in Winnishiek county, through Allamakee county to the Mississippi River, as described by the late Ellison Orr. In this area every tree that would hold a nest was used, and the larger trees held from one dozen to two dozen nests.

The pigeons frequented beech and oak timber where their favorite food of beechnuts and acorns (called "mast") was accessible. The daily food intake of a pigeon was enormous. Alexander Wilson gave a half pint of mast as the daily requirement and estimated that the flock of 2 billion pigeons seen by him would eat nearly 17½ million bushels a day.

Hunting wild pigeons was a prime sport all over the interior of eastern United States where the bird ranged. Not much is recorded in Buchanan county history about pigeon hunting, but many a great-granddad's eye will light up today as he recalls some of the pigeon shoots of his youth. We quote one item from the printed record: "In June, 1858, the sportsmen of Independence were having rare sport shooting them, thousands having congregated in the fields about town, the Cobb pasture just west of Independence being literally alive with them."

Pigeon shooting for sport had no effect on the decrease of the bird. To the market hunter who shipped by carloads and the squab hunter who robbed the nests must be attributed the destruction of this beautiful and gentle bird.

As soon as railroads threaded the eastern half of United States, the trade in pigeon meat began to reach sizable proportions. The trains offered a means of transportation to eastern markets, and beginning in the 1840's and '50's the tempo of pigeon slaughter quickened. In 1851, 1,800,000 pigeons were shipped to market from one nesting site in New York state alone.

Nearly a decade later Iowa farmers became interested in trapping wild pigeons for market, or hired out to the professional pigeon netters who followed the birds the year around. The systematic netting of the birds by thousands of professionals did more to hasten the demise of the pigeon than anything else.

The pigeons were trapped, packed in barrels without being dressed, and with a piece of ice on top, were shipped to Chicago or Milwaukee. Farmers assisted in the trapping and hauled the wagon loads of dead birds to the railroad stations. When the birds became scarce in one area, the trapper moved on. Pigeon catchers were kept advised as to the movements of the pigeon flocks by telegraph, thus the sordid work went on all through the year.

The common pigeon trap as used in eastern Iowa and over the middle west consisted of a net 12 by 20 feet of one-inch mesh, some stakes and lengths of rope, a fish line and a pigeon stool.

The net was staked down in front of a feed bed, two stakes forming triggers which were tied to spring poles on each side by long ropes. A bough house was constructed near by and the trapper stationed himself therein, ready to pull the trigger when the feed bed was covered with pigeons. The trigger released the bent-down poles, which in turn jerked the net over the feed bed and trapped the luckless pigeons beneath. The "stool pigeon" (our present-day derivative came from this) was placed on the pigeon stool, which was constructed on a hinge so that the trapper could pull a fish line and upset the tethered pigeon on the stool.

The fluttering pigeon was a definite lure to those flying overhead and they usually circled and dropped down to the prepared feast. The trapper also used "fliers" as decoys. These birds were blindfolded or had their eyelids sewed together with thread. They were tethered by 50 feet of fish line and thrown into the air at intervals by the man in the bough house. Recalling that pigeons had to be driven away from freshly planted fields, we can understand how easily the hungry birds were decoyed in the fall.

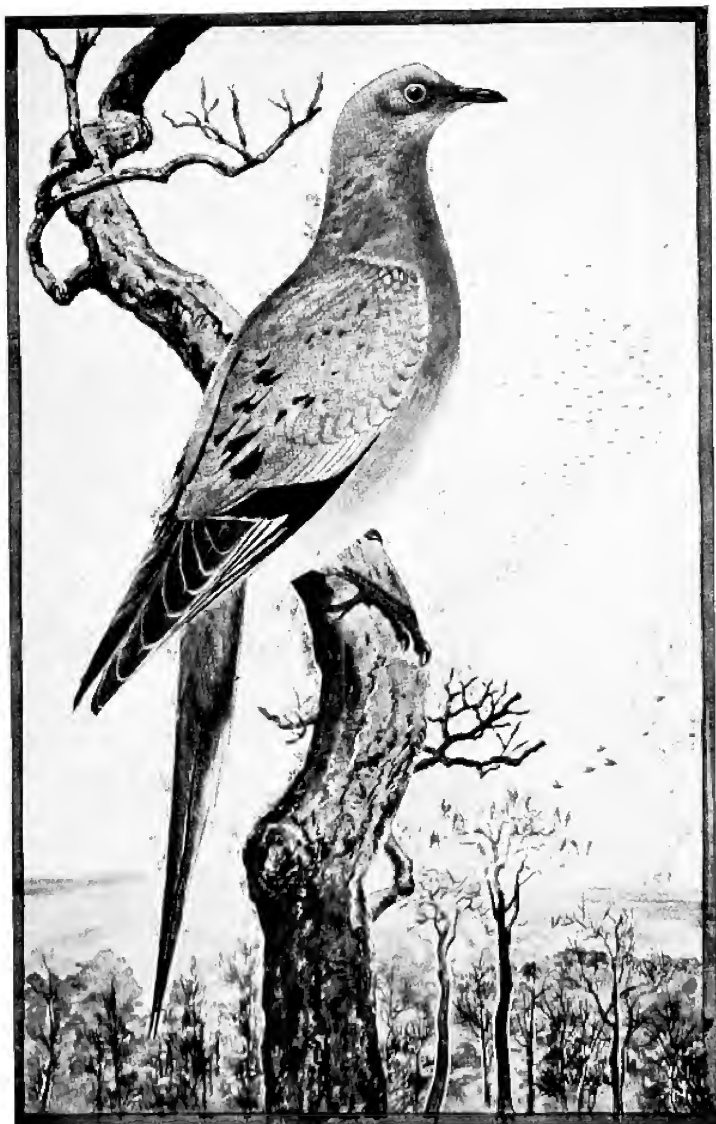
There were no game laws and the pigeon killing industry became highly organized "big business" in the latter half of the 19th century. The slaughter was as ruthlessly systematic as it was cruel and revolting.

Pigeons were netted by millions, their nests were robbed year after year wherever they tried to establish themselves, and they were shot, clubbed and trapped in every conceivable way, with the market hunter holding the pre-dominant place.

A decline in the nefarious traffic began in the 1880's. The bird appeared in greatly reduced numbers from year to year — yet no one expected them to

become extinct. But in 40 short years of incessant persecution, a bird which had been on earth from time immemorial and whose numbers had been estimated at between 3 and 5 billion at the peak, was erased from our living fauna.

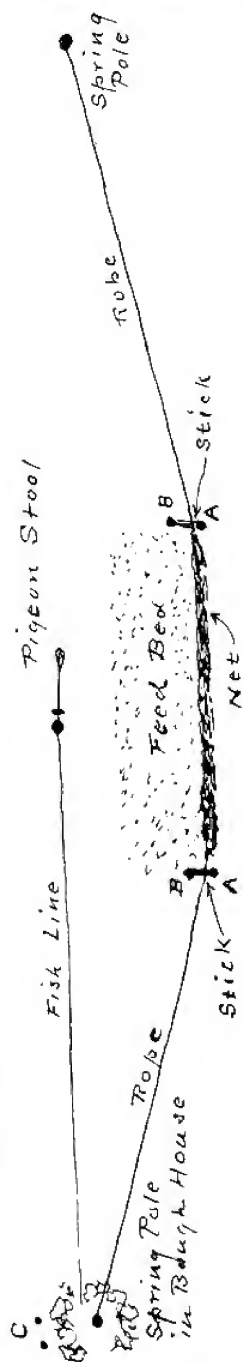
The last remaining Passenger Pigeon died in 1914 in a Cincinnati zoo where it had lived for many years. Man will never again see a living Passenger Pigeon, but perhaps later generations of thoughtful men will learn from its passing a valuable lesson in the conservation of wild life.



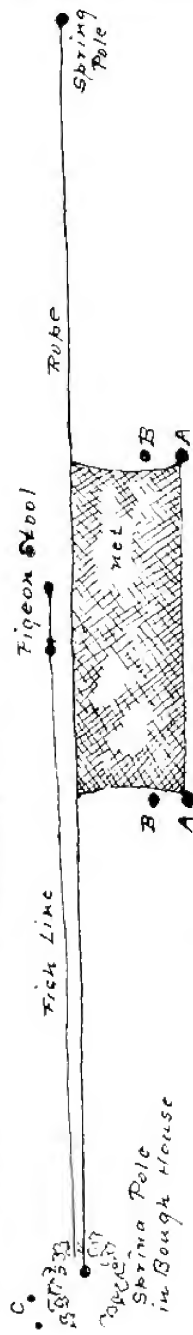
THE PASSENGER PIGEON

Shown above, once "blackened the skies" in Buchanan county and made life miserable for farmers at planting time. The birds would swoop down and peck out the grain sown by the farmers. The bird is now only a memory.

PIGEON TRAP — SET.



PIGEON TRAP — AFTER SPRINGING.



THE PASSENGER PIGEON TRAP

The pigeon catcher hidden in the Bough House pulled the rope which released the sticks triggered into notches in the stakes "A" and "B". The spring poles threw the net over the feed-bed and trapped the pigeons. "C" indicates stakes to which "Fliers" were tied. (Reprinted from Iowa Bird Life, June, 1936, issue, p. 24).

JOINT CONVENTION AT DAVENPORT

On May 14, 15, and 16, 1965, the Iowa Ornithologists Union will for the first time meet jointly with the Illinois Audubon Society. The site of this meeting is the new million dollar plus Davenport Public Museum, located at Twelfth and Division. Green signs point the way to the museum. On Friday night, May 14, an informal reception will allow a chance for members of the two organizations to become better acquainted. This will also provide an opportunity to view the special art exhibit covering Iowa and Illinois birds and including the work of Walter Breckenridge, Maynard Reece, and E. W. Steffen.

On Saturday morning, May 15, field trips will cover Illinois areas, including such well known areas as the Rock Island Arsenal, Blackhawk State Park, Loud Thunder Forest Preserve, and Sunset Park. Depending on water levels it might be possible to visit a heronry. Morning papers will be "Winter Movements of Buteos", Terrence Ingram; "Hole Nesting Birds and How to Attract Them", T. E. Musselman; and "African Birds", Turner Nearing. In the afternoon the program will consist of two papers; "Migrant Birds in the Davenport Area", a movie, Urban Stratman; and "Factors Influencing Marsh Bird Populations in Iowa", Gerald Kaufmann; followed by a panel discussion on pesticides. This panel has over one hour of program time and should prove quite enlightening. The panel will be composed of Anthony Keith, researcher on pesticides at the University of Wisconsin; Lester Stone, conservationist and orchardist of Hampton, Illinois; Charles Ayres, I.O.U. pesticide chairman; Elton Fawks, Chairman of the Illinois Pesticide Control Committee with Vernon Hagelin, IPCC secy. serving as chairman. The two clubs will then hold separate business meetings. The banquet will be held at St. John's Methodist Church, 14th and Brady (highway 61). Dr. Alfred Bailey, Director of the Denver Museum of Natural History, will present the program, a film on the Galapagos. Dr. Bailey has been on our programs before and is an excellent photographer and speaker.

On Sunday morning, May 16, field trips head for Iowa birding spots. Among the areas to be visited are Credit Island, Lock #14, Muskrat Slough, Wildcat's Den State Park and Lake Odessa. We hope the weather will cooperate and enable us to have some time birding.

Members in the Davenport area may wish to attend the 41st annual May Dawn Bird Concert to be held Sat., May 1 at 5:30 A.M., C.D.T. at Credit Island Inn with breakfast at 7:00. For reservations write Don Herold, Davenport Public Museum, Davenport. ed.

FIELD REPORTS

According to the Weather Bureau Station at the Des Moines Airport the first half of November was extremely warm, averaging 14° above normal, but colder weather set in bringing the month's average down to an excess of only 2.8°. Precipitation was slight. December was for the most part slightly colder than normal with precipitation again amounting to less than one inch. January was cold, particularly the last third which brought the month's deficit to 76°. A number of light snowfalls resulted in an excess precipitation of .32".

While some species are considered to be up as compared with last year it is generally agreed that numbers are down for most of the common permanent or winter residents, with a great lack in the number of the occasional visitors. Some comments: "No report of rarer winter birds, Red-breasted Nuthatch, Evening Grosbeak, Pine Siskin or crossbill", (DG); "This winter has been below average in birding", (DP); "A minimum for normal winter populations", (FK); "Since this has been a fairly mild winter and an open one,

I have had few birds at my feeder", (EG). Another thought: "Birds seem to be running low in their preferred feed—Virginia creeper berries and grapes", (HMcK). There have been numerous comments that feeders in Des Moines are poorly patronized, but "Populations seem to be holding steady for most species", (JK). Mrs. Darrell Hanna and Russell Hays have commented on the wanton shooting of hawks and owls.

Loons, Swans. A Common Loon was on Lake Macbride on 25 November, and on 21 November and 5 December a swan was observed by Dr. Pepernik. (FK).

Geese, Ducks. Several reports of Canada and other undesignated geese were received: 5 Canadas over the Mississippi River on 9 January, (PL); 17 Canadas near Princeton on 13 December seen by Elton Fawks; 1 Canada on the Cedar River first two weeks in January, (RH); small flocks of geese on Lake Macbride early in December, (FK); and several flocks flying south over the Missouri River on the road to Omaha at the last of November, (DH). Most of the duck reports concerned Mallards; thousands at Coralville on 28 November, (FK); 50 on the river at Cedar Falls the second week in January, (RH); flocks of more than a thousand in cornfields late November, (DG); single males wintering, (DP, DK, WHB), and 2 males, (H McK). The usual wintering species, Mallard, Black, Ring-necked, Canvas-back, Scaup, Golden-eye and three Mergansers present at Davenport, with single observations of Pintail, Blue-winged Teal and Old-Squaw, the latter on 13 December by Elton Fawks, (PP). At Rock Creek Lake on 10 January, 1 Black was with a flock of 90 Mallards, (RN). Other reports: a Green-winged Teal at Harper's Ferry on 20 January, (DK); a pair of American Widgeon for a week in November, and a late male Wood Duck on 6 November, (Dick). Only 50 Common Goldeneyes were wintering as against 200 last winter, (DH). It was learned that the eider about which Myrle Jones was uncertain on the Christmas census was a King Eider as he suspected. The bird had been seen several times to better advantage and was identified by a Mr. Kile.

Hawks. Several Goshawks were reported: 1 at I.S.U. Horticulture Farm for 11 days in December, (DP); 1 in the city of Ames seen by Dick Knight, M.S. and DP; 1 at Pine Hill Cemetery, Davenport, on 29 November, an immature (PP), and another at the Des Moines Impounding Reservoir, described in a separate note. Ten hawks, Rough-legged, Red-tailed, Marsh and Sparrow and one unidentified, were seen on a trip from Ames to Decorah, (DP). Only a few Red-tailed wintering, but on 27 January a pair was checking an old nesting site, (EB); Red-tailed were numerous early in the winter but seen less often now, (JK); far below normal with no immatures, (DR); but, in usual numbers and seen frequently, (DH); and there are more hawks than usual this winter with one or two Red-tailed always to be seen, (EG). Several Red-shouldered were mentioned: in Wyth Park on 23 January, by Mrs. Barlow, and at Cutshaw Access on 7 December by Mrs. Hewitt, (RH); but none was seen in the Bluffton area, (DP). Most Rough-legged reports were good: more numerous this year, (DH); good numbers, (JF); more than usual, (JK); wintering in Story Co. in good numbers, (Dick); much larger flight than last year with normal numbers wintering, (EB); far above normal early in the winter, but hard to find now, (DR); and none this winter, (DG). Sparrow Hawk reports conflict: very few wintering, (EB); more than usual, (EG); about usual, (DH); and none since early winter, (JK). The first Bald Eagle at Bellevue was on 25 November, and the largest number 9 on 6 January, (MJ); Harper's Ferry on 26 January had 8, and there could have been more in some open water which was inaccessible, (DK); Bob Vane and Harold Ennis saw one on 17 January at Palisades Park, (FK). Myrle Jones calls attention to a count of 121 Bald Eagles from Bellevue to Clinton on 5 January. A later count the

weekend of 13 and 14 February totaled 267 Bald Eagles between Bellevue and Burlington (PP).

Grouse, Pheasants. Four Ruffed Grouse in new areas near Decorah could be an extension of territory, (DP). Ring-necked Pheasants are left in good numbers after the long season, (EB); were plentiful (except during the hunting season), (JK); and seem about average to a little below, (DH).

Rails, Shorebirds, Doves. A Yellow Rail which had been injured by a mower was brought to Myrle Jones early in November. A Common Snipe was wintering at Ames and another at Decorah, as was the Killdeer, (DP). An injured Greater Yellow-legs was in Ames on 6 November, (Dick). A few Mourning Doves were wintering at Ames and Decorah, (DP), but the former were thought fewer than usual, (Dick). Several were seen as late as 8 January, (HMcK); but they are missing at Sioux City, (DH).

Owls. Four Barn Owls are in Ames, (Dick). Most Horned Owl nesting areas are apparently occupied, (DR). A Snowy Owl was seen 6 January south of Sloan (DH); on 21 December near Pleasant Valley, a male (PP); and on 20 November one was seen by Dr. Pepernik at Lake Macbride, (FK). The surprising number of 7 Barred Owls was seen on 11 January between Mt. Ayr and Clarinda, (EG). There has apparently been no invasion of Long-eared, but one was found late in December by Mrs. DeLong and Mrs. Ballantyne, (DG); 5-8 present at the Pine Hill Cemetery roost (PP) and there were two widely separated observations in Des Moines. Short-eared have been more numerous: 2 or 3 any day since 15 November, (DG); from 1 to 3 on five occasions, (JK); 3 near Cedar Falls by Mrs. Rugg, (RH); seen several times along Interstate 80 near Davenport (PP); 1 outside Hamburg with another farther east, (EG); 15 in Des Moines on the date of the first observation on 26 December, but fewer seen since; but only 1 seen at Ames. No owl of any kind was seen nor were any pellets found, (GB).

Kingfishers. Belted Kingfishers stayed in several localities where open water remained: Davenport, Hamburg, Lamoni, Decorah. The last seen at Jefferson was on 3 January, (JF), and a freeze-up ended the Ames observation (Dick).

Woodpeckers. A Red-shafted Flicker was at the Ed. Eaton's feeder in Sidney early in November, (EG). Yellow-shafted have been in Ames in good numbers all winter, (DP, Dick); there were unusually large numbers in Des Moines in late fall, but few since; seen only occasionally, and fewer than last year, (DH); while there are none for the first time in eight years, (GB). Red-headed: common at Decorah but none at Ames, (DP); more abundant than ever before, several woods with 10 to 20, and one place on the Grand River with more than 50, (DG); only one report, (DH); less common than usual in East-central Iowa (PP), and none since mid-December, (JF). Yellow-bellied Sapsuckers for the first time are being seen regularly at Ralph Silver's feeding station, (DG); two reports, one at a feeder for a month, (DH); several wintering in Des Moines and Davenport, and observed 29 November for his first winter record, (RH). Hairy and Downy are down according to reports from eight feeding stations plus field observations, (DH); Downy seems numerous, but Hairy same or down some, (GB); noticeable decrease in Hairy, Downy and Red-bellied, (DR); permanent resident species seem up slightly, (JF).

Horned Larks, Jays, Crows. Horned Larks: very few, (EB); down, at Decorah and Ames, (DP); not many at Des Moines; many flocks on 30 January to and from Omaha, but fewer and smaller flocks at Sioux City and northward, (DH); common but fewer, (JF); but, best wintering population for several years, (DR) and good numbers at Davenport (PP). Blue Jays: down,

(DH) and (GB); but, up, (Dick). Common Crows, only scattered individuals, no large roost, (DH).

Chickadees, Titmice. Black-capped Chickadees: plentiful, (GB); more than usual, (JK); a noticeable decrease, (WHB); considered by all reporters to be down, (DH); way down after an extensive check, and banded only 20% of the usual number in December, (MJ). Tufted Titmice, common at Decorah but scarce at Ames, (DP); seem fewer in Des Moines.

Nuthatches, Creepers, Wrens. White-breasted Nuthatches very common and two Red-breasted seen, (JK), nuthatches down, (GB); few Red-breasted or Creepers at Ames (DP). Creepers probably in usual numbers, (DH); two daily for a month until 15 January, (MJ); greatly decreased, (JF); and none seen in 50 trips, (Dick). All other references to Red-breasted Nuthatches commented upon their absence. Winter Wrens were seen: at Shell Rock on 22 January, (RH); at least three at Burlington, (PL) at Clinton with one banded by Leshner (PP); one at Cutshaw Access by Mrs. Hewitt, (RH); and few found at Ames, (Dick, MS). Carolina Wren present at Wildcat's Den State Park for the first time in several years (PP).

Mimics, Thrushes. Mockingbirds are present in small numbers, (DG). Wintering Robins seem fewer than usual: several seen in Russell area until mid-November, only two reports of single birds in mid-December with none since, (DH); scattered birds in Ames, (DP, Dick). Robins and Bluebirds feeding on dried wild grapes, (DG). One January Bluebird in Sioux City, one in Des Moines, and two in December (HMcK). A late Swainson's Thrush was in Greenwood Park, Des Moines on 23 November. Considerable excitement was aroused in Grinnell when a Varied Thrush appeared on 4 December and remained for about a week. It, or another, was also seen on 3 and 4 January.

Gnatcatchers, Kinglets, Pipits, Waxwings. A very late Blue-gray Gnatcatcher was seen 13 November, (JF). Golden-crowned Kinglets were common in Ames and Decorah, but January has seen a reduction in numbers. One Ruby-crowned was in Ames in mid-December, (DP). Kinglets have been numerous with 10 seen on 10 December, (JF); although none of either species has been reported all winter, (DH). Neither have there been any in Hamburg where they usually winter, (EG). More than a thousand Cedar Waxwings were wintering around Decorah, (DK); and they were abundant through October but not seen in January, (MJ). They have been missing at Sioux City, (DH).

Shrikes, Starlings. The only shrike observation is of a Northern on Christmas, (JK). A roost of thousands of Starlings formerly at Sioux City moved across the river to Nebraska, (DH).

Blackbirds. Meadowlarks are scarce, (DH); and decreased at Ames in December and January, (DP); but a great many both east and west of Hamburg, (EG); more common than in several years, (JK); and, good numbers of Western wintering, (DR). A few Brewer's Blackbirds wintering for the first time, (EB). Grackles common, (JF); only two reports of wintering birds since the cold caused the flock of 5-8000 mixed blackbirds to leave on 20 November, (DH); a few grackles, (EB); very few grackles and no cowbirds at Ames, (DP). Wintering blackbirds common with flocks seen on a warm day, (JF). The usual wintering flock of Redwings, Grackles and Cowbirds, about 8,000, wintered at Nahant Marsh, Davenport (PP).

Finches, Sparrows. Cardinals in good numbers, but not as many as last year, (GB); 1 to 6 seen each trip, (JK); one flock of 25 on 10 January, (JF); numbers up, (Dick). An immature Rose-breasted Grosbeak was present at a Davenport feeder for two weeks in January, died and was collected, (PP). Some Purple Finches in Decorah in November, and until mid-December in Ames, with none later, (DP, Dick); only a few in Des Moines;

very few in Iowa City, (FK); 14 at Bellevue after the census and part of the flock seen subsequently, (MJ). Goldfinches up, (Dick, MS). The only Red Crossbill report is of one seen by Russell Hays in November. Slate-colored Juncos: scarce enough to cause comment, (DH); fewer than any time remembered, (DR); low, (FK); down slightly, (GB). Two Vesper and one Field Sparrow seen at Ames 7 November, (DP). Tree Sparrows down, (DP, GB, FK). Harris' Sparrow: one of the most abundant sparrows around Ames, but all seem immatures, (DP); many wintering with small flock in each bushy area, (JF); more wintering than usual, (EB); but, few wintering, (JK). A late Lincoln's Sparrow on 7 December, (EB). White-crowned Sparrows: only a couple after several seasons with 20-50 wintering, (FK); 2 immatures near Rock Creek Lake on 8 January, (RN). Song Sparrows: up some, (GB); more wintering than most years, (DR); with White-throated at Ames, and with Swamp Sparrows at Decorah, (DP). Longspurs: from 2-3000 near Castalia on 31 October, and a dozen all winter, (DK); flocks daily during November, but none since, (DG); fairly common, (JF); fewer than usual, (JK); no flocks seen, (EB). Snow Bunting: one seen near Waterloo about 23 December, (RH); with 6 near Castalia on 31 October, (DK).

Contributors: Mrs. Gladys Black, Pleasantville; Eldon Bryant, Akron; John Faaborg, Jefferson; Mrs. Edwin Getscher, Hamburg; Donald Gillaspey, Lamon; Mrs. Darrell Hanna, Sioux City; Russell Hays, Waterloo; Myrle Jones, Bellevue; Jim Keenan, Ogden; Fred Kent, Iowa City; Dick Knight, Ames; Darwin Koenig, Castalia; Peter Lowther, Burlington; Howard McKinley, Russell; Dr. Robt. Norton, Grinnell; Don Peterson, Ames, Decorah; Peter Petersen Jr., Davenport; Dean Roosa, Goldfield; Myron Swenson, Ames. WOODWARD H. BROWN, 4815 Ingersoll, Des Moines, 50312.

Western Grebe in Winnebago County—On October 16 at 8:00 a.m. I was happily counting the first geese I had seen for the fall season on Rice Lake Wildlife Refuge. Using a pair of 7x35 wide angle binoculars, I scanned the area beyond the geese. A large bird doing a lot of diving caught my attention. Before long I realized that I was looking at a Western Grebe. The black and white color pattern was noted, and the long, slender, swan-like neck clinched the identification. I consulted my "Peterson" just to make sure. Although the recently published paper by Dr. Grant lists this bird as being rare with only 14 published sight records for Iowa, this was my second encounter with this species. On October 19, 1962, my father and I saw a pair of these "swan grebes" on Elk Creek Marsh, just 3.5 miles east of the Rice Lake area.—BARTON E. SUTTER, Box 17, Hanlontown.

Post-breeding Territorial Defense?—While taking a census of the bird population of Rice Lake Wildlife Refuge (Winnebago County) on August 18, I observed an interesting incident concerning bird behavior. About noon I came upon an inlet in which a large number of shorebirds had gathered. I had just finished counting the number of individuals, when I noticed two Greater Yellowlegs just a few feet from me. They were feeding peacefully about 50 feet apart. Suddenly one bird flew at the other and some wild fluttering resulted. A display followed this in which both birds faced each other with outthrust breasts while they hovered in the air for 20 to 30 seconds. Then one bird flew out of sight with the other in hot pursuit. Perhaps a minute later, I was surprised by the return of one of the birds to the feeding area, followed a few seconds later by the other bird. They fed peacefully for a short time, but soon the attack, display, and pursuit were repeated. I later discussed this behavior with James Karr, wildlife management student at Iowa State University, and Jerry Kaufmann, biology instructor at Loras College. They suggested that some stimulus had created territory defense behavior in these Greater Yellowlegs, even though they were migrants and their breeding

season was over. BARTON E. SUTTER, Box 17, Hanlontown.

Hawk vs. Pheasant—One often hears of hunters who gripe about hawks which kill gamebirds. I had always thought that any such killing was done with young birds. The adult birds were always too big or too alert. One afternoon last spring this idea was disproved. A friend and I were walking along a ditch looking for sparrows. Suddenly, with the normal amount of noise and confusion, three pheasants flew off. A few seconds later another one flew off. This last one was a bit smaller, although it appeared healthy. We watched it glide across a field and behind some trees. We presumed that it would cross the river and land in the woods on the opposite side. Suddenly this bird came darting back, with a Cooper's Hawk at its tail. Oddly, the two birds were about the same size, although the hawk had a longer wing spread. The hawk kept getting closer until they reached the ditch. Then they both darted downward about 25 feet in front of us. We crept forward to where they had gone down. When we were a few feet away the hawk flew off. There were feathers everywhere, but no pheasant. We searched carefully and saw it. It was pinned under a log so tightly that it couldn't escape. We hurried and grabbed it before my Beagle, an avid pheasant chaser, saw it. We let it go with just a few small cuts and a few lost feathers. We had saved a pheasant's life, but who knows? Maybe we made a hawk go without supper. JOHN FAABORG, 705 W. Madison St., Jefferson.

Canoeing for Woodpeckers—Some of you probably went canoeing at last spring's convention. This type of transportation has many advantages. It's quiet, easy to use, and fairly quick. While vacationing with my family in Minnesota I found a canoe to be a very big help, especially in finding Pileated Woodpeckers. I had always wanted to see a Pileated, and when I heard that my older brother had seen one while fishing, I got excited. After two days of constant fishing, I had seen no Pileated. So that night I didn't go out. Guess what? He heard Pileateds. The next morning I arose early and went Pileated Woodpecker hunting. The best way I had to travel was a canoe our family had rented. I paddled across the lake and followed the shore. Suddenly, to my left, I heard one. But what was that other odd noise. I pulled up to the shore and held on to some weeds. Then I saw them. There were two Pileateds and a Sharp-Shinned Hawk, fighting. By waiting I was able to see them within 25 feet of me. Although this woodpecker is fairly common in eastern Iowa it is rare where I live. It is always fairly shy. For this reason I am indebted to canoes, for they gave me an experience I won't ever forget. JOHN FAABORG, 705 W. Madison, Jefferson.

Goshawk Takes a Duck in Des Moines—On the afternoon of December 20, 1964, "Woody" Brown, Joe Kennedy and I made a trip to the Des Moines Impounding Reservoir to check on the ducks. The lake was almost entirely frozen over but a small area remained open and there were, perhaps, twenty Mallards and Scaup sailing about in the icy water. As we approached the shore through the woods we were startled to see a very large hawk making low passes over the ducks. We soon realized by his shape and flight that he was an accipiter. When he landed in a tree near the bank we had a good look at him and by his very large size, his brownish streaked underparts and the distinct light mark over the eye we knew him to be an immature Goshawk.

As we watched him, perched, several of the ducks disappeared around a point without our noticing. Then he hastily flew around the same point and we thought the show was over. But two or three minutes later we scanned the lake and out in the center on the ice sat the Goshawk busily defeathering a duck. We circled the reservoir and as we came in sight of him about an hour later he was in the same spot eagerly tearing away at his prey. Since

there are very few records of the Goshawk in Polk County we hoped he might be around to be counted on the Christmas Census. But on December 26, the lake was completely frozen and neither ducks nor Goshawk appeared. MRS. DWIGHT BROOKE, 126 51st St., Des Moines.

Fulvous Tree Duck in Iowa—On June 11, 1963, a Fulvous Tree Duck (*Dendrocygna bicolor*) was observed on Dewey's Pasture, five miles northwest of Ruthven, Iowa in Palo Alto County. The Fulvous Tree Duck is classed as rare in Grant's "Checklist of Iowa Birds" (*Iowa Bird Life*, Vol. XXXIII, 1963, p. 50), with a single sighting reported in 1931. Kortright (*The Ducks, Geese, and Swans of North America*, 1953, p. 376.) states that its breeding range is in southeastern United States and northern Mexico.

The duck was observed loafing on the top of a large muskrat house near the center of an open pothole. As the observers approached in hopes of taking pictures, the bird flew. It circled about the pothole and flew directly over the observers, making identification positive. While it made its slow flight, several Red-winged Blackbirds (*Agelaius phoeniceus*) chased it. The tree duck was not seen again on later trips to the area. GERALD J. HORAK, Kansas Fish and Game Commission, Elmdale, Kansas and GERALD W. KAUFMANN, Loras College, Dubuque, Iowa.

The Elusive Warblers—It has often been said that one travels far in search of new knowledge or treasure, only to find it in one's own back yard. This was my experience on May 17, 1958, with the Ovenbird. I had spent the afternoon at Waubesa State Park in southwestern Iowa trying to get a glimpse of this elusive bird singing as a voice in the forest but not once making a visible appearance from his deep solitude. On arriving home that day in Shenandoah, I set the automatic on the water trap in my back yard and busied myself getting the evening meal with an alert eye on the trap outside. In a short time I had an Ovenbird in my hand to band and to add to my year's list of birds!

My first view of a Yellow-breasted Chat was the fall of 1956 when we got one in a water trap (see *Iowa Bird Life*, Vol. XXVIII, page 30). Coming into my classroom at one o'clock after being on noon duty, I lifted the towel from the carrying cage on my desk and there much to my surprise I had my first view of a Yellow-breasted Chat! We had set up a trap in some bushes near a railroad track where we could watch it from the school window. The children had checked the trap just before one o'clock and had found this chat.

My first glimpse of a Townsend's Warbler and a Virginia's Warbler was the summer of 1963 in Rocky Mountain National Park, Colorado. Both warblers are on the park's list. The Virginia's is even a nesting bird, but I had not been able to spot either one until I had them both in a net in my own back yard!

This fall on November 17, 1964, in my back yard here at Shenandoah, Iowa, I had put up a short net in front of the *Lonicera mackii* honeysuckle, a late honeysuckle loaded with red berries. I was banding Cedar Waxwings which were making a flight between the honeysuckle and an apple tree loaded with rotten apples. As I was removing a Cedar Waxwing from the net, I had a fleeting glimpse of a small bird in the apple tree. Its breast was striped. That was all I noticed, for in an instant it was gone flying to the pine trees to the south.

About four o'clock in the afternoon I decided to take down the net. To my surprise there was the small bird, a warbler, in my net! I first noticed the white marks on the tail and the very greenish-yellow rump. The breast was striped suffused with much yellow. Here was a warbler I had seen in the apple tree and I knew it was one I had never seen before. I called Mrs. Francis Braley and her mother Mrs. Robert Bordner. Mrs. Bordner, who has kept

records for more than twenty years, noticed the yellow stripe over the eye and the yellow spot behind the ear. She exclaimed, "A Cape May Warbler in western Iowa on November 17!"

Together we searched all the clues in Peterson's **Field Guide to the Birds** and Robert's **Birds of Minnesota**. Robert's book has an excellent section, "Keys and Descriptions for the Identification of Birds," to help one with birds in all plumages. We noticed that this bird we had in the hand had dark feet, a plain back, and wing bars. When we looked at Fuenes' painting of the female Cape May Warbler in Pearson's **Birds of America**, Mrs. Braley excitedly remarked, "That painting looks exactly like the bird you have in your hand!" Bent's **Life Histories of N. Am. Wood Warblers** gives the Cape May Warbler as one that sometimes lingers very late in fall migration. On page 223 of Bent a record for the Cape May Warbler is November 27 at Iowa City, Iowa.

Yes, one often travels far in search of new species, only to find them in one's own back yard! MRS. W. C. DeLONG, Box 278, Shenandoah.

OBITUARY

George O. Faulkner

George O. Faulkner, who joined Iowa Ornithologists' Union in 1931, died at Waterloo, Iowa, November 17, 1964, from complications of old age. He held continuous membership in the Union until his death. He was born April 13, 1880, at his parents' home at 312 Mulberry St., Waterloo, and here he lived his entire life until some time in June, 1964, when, due to failing health and eyesight, he moved to a local hotel. He had no brothers or sisters, and he never married.

Faulkner was a letter carrier for the U.S. Postal Department, from which he retired in 1933, having been employed the required number of years. He then took numerous cruises, covering most of the world, and he also traveled extensively in the United States.

He had a lifetime interest in birds, and birding was his chief hobby, although in earlier years he loved fishing and hunting. He was a genial companion and a good observer. His friends were always glad to have him on a field trip, which was a fortunate circumstance since he never drove a car. Apparently the only note he ever wrote for **Iowa Bird Life** was published in the second issue, Vol. 1, No. 2, 1931 (p. 23), when he reported a nesting of the Woodcock in the outskirts of Cedar Falls, on May 31, 1931.

One of Faulkner's friends, Roger D. Brunn, furnished most of the biographical data, and we have quoted from his letter above.—F. J. P.

ATTENTION IOU MEMBERS

If all of you would also join the WSO and all WSO members would join the IOU, then we both would be twice as good as we are now! For only three dollars a year more this could be done. **Iowa Bird Life** and **The Passenger Pigeon** could reach a much wider audience, we could greatly augment our voices in the struggles of conservation, we could keep up our liaison with our fellow birders, we could increase our knowledge of birds, improve our perspectives and share our problems, and not least we could increase our treasures. It is up to each one of us to make a great idea work. **The Passenger Pigeon**, official publication of the Wisconsin Society for Ornithology, is published quarterly. Classes of membership and annual dues are: Students, \$2.00; Active, \$3.00; Husband and wife, \$4.00; Sustaining, \$5.00; or more, Life, \$75.00, Patron, \$100.00 or more, Library, \$2.00. Membership dues should be sent to the treasurer, Mrs. Alfred O. Holz, 125 Kolb Street, Green Bay, Wisc.

Our 1965 Horned Lark cover was done by James Morrison of Davenport, a member of the faculty at Pleasant Valley Township High School. ed.

BOOK REVIEWS

An Introduction to Bird Life for Bird Watcher—(formerly titled "The Lives of Wild Birds")—Aretus A. Saunders—reprinted by Dover Publications, Inc., New York—256 p. with many line drawings—1964—paperbound—\$1.00.

The new title tells one exactly what this book contains. The author is best known for his work on bird song, being the originator of a very workable system of diagramming the songs of birds. He broadens the scope of his writing to cover a wide range of material in the book.

The book begins with a section concerned with identification, approaching this subject from the standpoint of color, markings, size, shape, habit, posture, habitat and song. The observation of migration and keeping of notes and records are discussed along with a fairly detailed coverage of the nesting cycle. The remaining chapters deal with finding birds nests, studying behavior, feathers, plumages, colors, food, ecology, conservation, and the study of songs and calls. Many books are available on this material, but this book covers it from different angle and sheds additional light on the subject for the newcomer. ed.

Studies in the Life History of the Song Sparrow—Margaret Morse Nice—reprinted by Dover Publications, Inc., New York—2 volumes—574 p. with photos, maps and charts—1965—paperbound—\$1.75 each volume.

A reprinting of a work which has long been considered a classic in life history studies. Mrs. Nice spent eight years on the research for these volumes and her work has served to inspire countless students of ornithology. The first volume is concerned with a population study dealing with environment, weights, measurements, migratory status, territory, nesting cycle, survival, predators, and population problems. The second volume discusses behavior, mentioning development of the young, activities, innate and learned behavior, social structure, awakening and roosting, song, function of territory, nesting behavior, and enemy recognition. Any serious student should possess and digest these volumes. ed.

A New Dictionary of Birds—A. Landborough Thomson, ed.—McGraw Hill Book Co., New York—928 p. with 16 pages of color plates, many photographs and line drawings—1964—\$17.50.

This book combines the efforts of one hundred and seventy-four ornithologists from all parts of the world. The result is an excellent source of current, concise information on ornithology in dictionary style. One merely looks up the confusing term or concept and reads an explanation or definition written in readable, sufficiently detailed form. Cross references are frequent and help to tie together similar terms. While this is a reference book it is indispensable to supplement journals and general ornithological works. Public libraries should certainly have this book on their shelves, as well as serious bird students. ed.

The World of the Red-tailed Hawk—G. Ronald Austing—128 p. many photographs—J. B. Lippincott Company, Philadelphia and New York—1964—\$4.95.

A life history study expressed in very readable and interesting form. The author has spent many years observing Red-tailed Hawks and his familiarity is evident throughout the book. The author's excellent photographs greatly enhance the value of the book. The plan of the book is to first describe the species and its relationship to other hawks. Then the reader follows the birds through a year in their lives. One usually expects a life history study to be filled with technical details, but this book does not follow that form. The approach is refreshing for the average bird watcher and results in a thoroughly enjoyable book. ed.

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The central design of the Union's official seal is the Eastern Goldfinch, designated State Bird of Iowa in 1933.

Publications of the Union: Mimeographed letters, 1923-1928; "The Bulletin," 1929-1930; "Iowa Bird Life," beginning 1931.

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